



**ENVIRONMENTAL PROTECTION AGENCY**

**40 CFR Part 52**

**[EPA-R04-OAR-2010-0019(a); FRL-9741-2]**

Approval and Promulgation of Implementation Plans; North Carolina Portion of the Charlotte-Gastonia-Rock Hill, North Carolina-North Carolina 1997 8-Hour Ozone Nonattainment Area;  
Reasonable Further Progress Plan

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Direct final rule.

**SUMMARY:** EPA is taking direct final action to approve state implementation plan (SIP) revision, submitted by the North Carolina Department of Environment and Natural Resources (NC DENR), on June 15, 2007, as updated on November 30, 2009, to address the reasonable further progress (RFP) plan requirements for the 1997 8-hour ozone national ambient air quality standards (NAAQS) for the North Carolina portion of the bi-state Charlotte-Gastonia-Rock Hill 1997 8-hour ozone nonattainment area. The Charlotte-Gastonia-Rock Hill, North Carolina-South Carolina 1997 8-hour ozone nonattainment area (hereafter referred to as the “bi-state Charlotte Area”) is comprised of Cabarrus, Gaston, Lincoln, Mecklenburg, Rowan, Union and a portion of Iredell (Davidson and Coddle Creek Townships) Counties in North Carolina (hereafter referred to as the “North Carolina portion of the bi-state Charlotte Area”); and a portion of York County in South Carolina. EPA is also providing the status of its adequacy determination for the motor vehicle emissions budgets (MVEB) for volatile organic compounds (VOC) and nitrogen oxide (NO<sub>x</sub>) that were included in North Carolina’s RFP plan. Further, EPA is approving these

MVEB. These actions are being taken pursuant to section 110 of the Clean Air Act (CAA or Act). EPA will take action on South Carolina's RFP plan for its portion of the bi-state Charlotte Area, in a separate action.

**DATES:** This direct final rule is effective [Insert date 60 days after publication in the Federal Register] without further notice, unless EPA receives adverse comment by [Insert date 30 days after publication in the Federal Register]. If EPA receives such comments, it will publish a timely withdrawal of the direct final rule in the Federal Register and inform the public that the rule will not take effect.

**ADDRESSES:** Submit your comments, identified by Docket ID Number, "EPA-R04-OAR-2010-0019," by one of the following methods:

1. [www.regulations.gov](http://www.regulations.gov): Follow the on-line instructions for submitting comments.
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3. Fax: 404-562-9019.
4. Mail: "EPA-R04-OAR-2010-0019," Regulatory Development Section, Air Planning Branch, Air, Pesticides and Toxics Management Division, U.S. Environmental Protection Agency, Region 4, 61 Forsyth Street, SW, Atlanta, Georgia 30303-8960.
5. Hand Delivery or Courier: Ms. Lynorae Benjamin, Chief, Regulatory Development Section, Air Planning Branch, Air, Pesticides and Toxics Management Division, U.S. Environmental Protection Agency, Region 4, 61 Forsyth Street, SW, Atlanta, Georgia 30303-8960. Such deliveries are only accepted during the Regional Office's normal

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*Docket:* All documents in the electronic docket are listed in the [www.regulations.gov](http://www.regulations.gov) index.

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**FOR FURTHER INFORMATION CONTACT:** Ms. Sara Waterson of the Regulatory Development Section, in the Air Planning Branch, Air, Pesticides and Toxics Management Division, U.S. Environmental Protection Agency, Region 4, 61 Forsyth Street, SW, Atlanta, Georgia 30303-8960. The telephone number is (404) 562-9061. Ms. Sara Waterson can be reached via electronic mail at [waterson.sara@epa.gov](mailto:waterson.sara@epa.gov).

#### **SUPPLEMENTARY INFORMATION:**

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**I. What Action is EPA Taking?**

EPA is approving revisions to the North Carolina SIP, submitted by the State of North Carolina through NC DENR, on June 15, 2007, as updated on November 30, 2009, to meet RFP requirements of the CAA for the North Carolina portion of the bi-state Charlotte Area for the 1997 8-hour ozone NAAQS. The RFP plan demonstrates that VOC emissions will be reduced by at least 15 percent for the period of 2002 through 2008. Additionally, EPA is approving the required 2008 VOC MVEB and optional 2008 NOx MVEB which were included in the RFP plan for the North Carolina portion of the bi-state Charlotte Area. EPA is taking these actions because they are consistent with CAA requirements for the requirements for RFP. The MVEB for the North Carolina portion of the bi-state Charlotte Area, expressed in kilograms per day (kgd), are provided in Table 1 below.

**Table 1. MVEB for the North Carolina Portion of the 1997 8-Hour Bi-state Charlotte Area**

<b>2008 County-level Subarea MVEB (kg/d)</b>		
	VOC	NO <sub>x</sub>
Carbarrus	6,941	7,324
Gaston	5,132	7,647
Iredell*	3,601	5,637
Lincoln	2,726	2,948
Mecklenburg	26,368	34,526
Rowan	6,149	7,193
Union	6,299	5,660

\* Represents only the portion of Iredell County that is in the nonattainment area for the bi-state Charlotte Area

EPA is also describing the status of its transportation conformity adequacy determination for the 2008 MVEB.

## **II. What is the Background for EPA's Action?**

### **A. General Background**

On July 18, 1997, EPA promulgated a revised 8-hour ozone NAAQS of 0.08 parts per million (ppm). Under EPA's regulations at 40 CFR part 50, the 1997 8-hour ozone NAAQS is attained when the 3-year average of the annual fourth highest daily maximum 8-hour average ambient air quality ozone concentrations is less than or equal to 0.08 ppm (i.e., 0.084 ppm when rounding is considered) (69 FR 23857, April 30, 2004). Ambient air quality monitoring data for the 3-year period must meet the data completeness requirement as determined in 40 CFR part 50, appendix I. The ambient air quality monitoring data completeness requirement is met when the average percent of days with valid ambient monitoring data is greater than 90 percent, and no single year has less than 75 percent data completeness.

Upon promulgation of a new or revised NAAQS, the CAA requires EPA to designate as nonattainment any area that is violating the NAAQS, based on the three most recent years of ambient air quality data at the conclusion of the designation process. The bi-state Charlotte Area

was designated nonattainment for the 1997 8-hour ozone NAAQS on April 30, 2004 (effective June 15, 2004) using 2001-2003 ambient air quality data (69 FR 23857, April 30, 2004). At the time of designation the bi-state Charlotte Area was classified as a moderate nonattainment area for the 1997 8-hour ozone NAAQS. In the April 30, 2004, Phase I Ozone Implementation Rule, EPA established ozone nonattainment area attainment dates based on Table 1 of section 181(a) of the CAA. This established an attainment date six years after the June 15, 2004, effective date for areas classified as moderate areas for the 1997 8-hour ozone nonattainment designations. Section 181 of the CAA explains that the attainment date for moderate nonattainment areas shall be as expeditiously as practicable, but no later than six years after designation, or June 15, 2010. Therefore, the bi-state Charlotte Area's original attainment date was June 15, 2010. *See* 69 FR 23951, April 30, 2004.

The bi-state Charlotte Area did not attain the 1997 8-hour ozone NAAQS by June 15, 2010 (the applicable attainment date for moderate nonattainment areas); however, the Area qualified for an extension of the attainment date. Under certain circumstances, the CAA allows for extensions of the attainment dates prescribed at the time of the original nonattainment designation. In accordance with CAA section 181(a)(5), EPA may grant up to 2 one-year extensions of the attainment date under specified conditions. On May 31, 2011, EPA determined that North Carolina and South Carolina met the CAA requirements to obtain a one-year extension of the attainment date for the 1997 8-hour ozone NAAQS for the bi-state Charlotte Area. *See* 76 FR 31245. As a result, EPA extended the bi-state Charlotte Area's attainment date from June 15, 2010, to June 15, 2011, for the 1997 8-hour ozone NAAQS.

On November 15, 2011 (76 FR 70656), EPA determined the bi-state Charlotte Area attained the 1997 8-hour ozone NAAQS; and subsequently, on March 7, 2012 (77 FR 13493),

EPA determined that the bi-state Charlotte Area attained the 1997 8-hour ozone NAAQS by the applicable attainment date. The determination of attaining data was based upon complete, quality-assured and certified ambient air monitoring data for the 2008-2010 period, showing that the bi-state Charlotte Area had monitored attainment of the 1997 8-hour ozone NAAQS. The requirements for the bi-state Charlotte Area to submit an attainment demonstration and associated reasonably available control measures (RACM), RFP plan, contingency measures, and other planning SIP revisions related to attainment of the standard were suspended as a result of the determination of attainment, so long as the bi-state Charlotte Area continues to attain the 1997 8-hour ozone NAAQS.<sup>1</sup> *See* 40 CFR 52.1779(a).

On December 21, 2011, North Carolina withdrew the attainment demonstration submissions (except RFP, emissions statements, and the emissions inventory) as allowed by 40 CFR 51.918 for the North Carolina portion of the bi-state Charlotte Area.<sup>2</sup> Subsequently, EPA approved North Carolina's SIP revisions related to the emissions statements and emissions inventory requirements for the North Carolina portion of the bi-state Charlotte Area for the 1997 8-hour ozone NAAQS. For the EPA action related to the emissions statements requirements for the 1997 8-hour ozone NAAQS, see 77 FR 24382 (April 24, 2012) and 64 FR 41277 (August 1, 1997). For the EPA action related to the emissions inventory requirements for the 1997 8-hour ozone NAAQS, see 77 FR 26441 (May 4, 2012). Despite the determination of attainment, North

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<sup>1</sup> Originally, North Carolina submitted SIP revisions, including an attainment demonstration, on June 15, 2007, to address nonattainment requirements related to the 1997 8-hour ozone NAAQS. Specifically, North Carolina submitted an attainment demonstration and associated RACM, a RFP plan, contingency measures, emissions statement, a 2002 base year emissions inventory and other planning SIP revisions related to attainment of the 1997 8-hour ozone NAAQS for the North Carolina portion of the bi-state Charlotte Area. North Carolina withdrew the June 15, 2007, attainment demonstration SIP for the North Carolina portion of the bi-state Charlotte Area on December 19, 2008. On November 12, 2009, North Carolina resubmitted the attainment demonstration SIP, and on November 30, 2009, North Carolina provided an update for the June 15, 2007, RFP plan for the North Carolina portion of the bi-state Charlotte Area.

<sup>2</sup> North Carolina did not withdraw any elements related to reasonably available control technology (RACT) requirements, to the extent that these requirements were addressed in the attainment demonstration submissions.



Carolina opted to leave the SIP submissions related to the RFP requirements for the 1997 8-hour ozone NAAQS before EPA for action. As such, EPA is taking action to approve revisions to North Carolina's SIP submitted on June 15, 2007, as updated on November 30, 2009, as it relates to the RFP requirements for the 1997 8-hour ozone NAAQS.

## **B. Background for RFP**

On November 29, 2005 (70 FR 71612), as revised on June 8, 2007 (72 FR 31727), EPA published a rule entitled "Final Rule To Implement the 8-Hour Ozone National Ambient Air Quality Standard—Phase 2; Final Rule To Implement Certain Aspects of the 1990 Amendments Relating to New Source Review and Prevention of Significant Deterioration as They Apply in Carbon Monoxide, Particulate Matter and Ozone NAAQS; Final Rule for Reformulated Gasoline" (hereafter referred to as the Phase 2 Rule). Section 182(b)(1) of the CAA and EPA's Phase 2 Rule<sup>3</sup> require a state, for each 1997 8-hour ozone nonattainment area that is classified as moderate, to submit an emissions inventory and a RFP plan to show how the state will reduce emissions of VOC.

The bi-state Charlotte Area had an attainment date of June 15, 2010 (i.e., that is beyond five years after designation), that was later extended to June 15, 2011. *See* 76 FR 31245 (May 31, 2011). For a moderate area with an attainment date of more than five years after designation, the RFP plan must obtain a 15 percent reduction in ozone precursor emissions for the first six years after the baseline year (2002 through 2008). Since the North Carolina portion of the bi-state Charlotte Area did not have a previous plan to address RFP requirements,<sup>4</sup> the initial RFP

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<sup>3</sup> RFP regulations are at 40 CFR 51.910.

<sup>4</sup> Some areas that were designated as moderate or above for the 1-hour ozone NAAQS may have implemented Rate of Progress plans (i.e., plans similar to the RFP requirements) by which the area would have achieved at least a 15

requirement for the Area must be met through VOC reductions as required by the 1990 CAA Amendments.

Pursuant to CAA section 172(c)(9), RFP plans must include contingency measures that will take effect without further action by the state or EPA, which includes additional controls that would be implemented if the area fails to reach the RFP milestones. While the CAA does not specify the type of measures or quantity of emissions reductions required, EPA provided guidance interpreting the CAA that implementation of these contingency measures would provide additional emissions reductions of up to 3 percent of the adjusted base year inventory in the year following the RFP milestone year (i.e., in this case 2008). For more information on contingency measures please see the April 16, 1992 General Preamble (57 FR 13498, 13510) and the November 29, 2005 Phase 2 8-hour ozone standard implementation rule (70 FR 71612, 71650). Finally, RFP plans must also include a MVEB for the precursors for which the plan is developed. The State also had the option of developing MVEB for other precursors. See Section V of this rulemaking for more information on MVEB requirements.

On June 15, 2007, and later updated on November 30, 2009, North Carolina submitted the RFP plan for the North Carolina portion of the bi-state Charlotte Area to address the CAA's requirements for the 1997 8-hour ozone NAAQS. The June 15, 2007, SIP revision (as updated on November 30, 2009) included an attainment demonstration plan, RFP plan for 2008, contingency measures, RACT, RACM requirements, on-road VOC and NO<sub>x</sub> MVEB, and the 2002 base year emissions inventory. These revisions to the SIP were subject to notice and comment by the public and the State addressed the comments received on the proposed SIP revisions. Today's rulemaking is approving only the RFP plan, including the associated MVEB.

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percent reduction in VOC from an initial baseline. Such areas have the flexibility to meet RFP requirements through a reduction in VOC or nitrogen oxides, after the initial achievement in a reduction of at least 15 percent for VOC emissions for the area.

The remainder of North Carolina's June 15, 2007, submittal was addressed by previous EPA actions, or by the State's withdrawal of submissions that were no longer necessary.<sup>5</sup>

### **III. What is EPA's Analysis of the RFP Plan for the North Carolina Portion of the Bi-state Charlotte Area?**

On June 15, 2007, and later updated on November 30, 2009, North Carolina submitted the RFP plan for the North Carolina portion of the bi-state Charlotte Area to address the CAA's requirements for the 1997 8-hour ozone NAAQS. Below provides EPA's analysis of North Carolina's RFP submission.

#### **A. Base Year Emissions Inventory**

An emissions inventory is a comprehensive, accurate, current inventory of actual emissions from all sources and is required by section 182(a)(1) of the CAA. Because the North Carolina portion of the bi-state Charlotte Area as part of the bi-state Charlotte Area did not implement the 15 percent VOC reductions for the 1-hour ozone NAAQS, the requirement for North Carolina to meet RFP is a 15 percent VOC reduction between 2002 and 2008 with continued progress toward attainment through attainment.<sup>6</sup> EPA recommended 2002 as the base year emissions inventory, and is therefore the starting point for calculating RFP. North Carolina submitted its 2002 base year emissions inventory on June 15, 2007. In an action on May 4, 2012, EPA approved North Carolina's 2002 base year emissions inventory for the North Carolina portion of the bi-state Charlotte Area for the 1997 8-hour ozone NAAQS. *See* 77 FR

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<sup>5</sup> North Carolina's November 30, 2009, SIP revision only addressed RFP and is being acted on in its entirety in this action.

<sup>6</sup> The bi-state Charlotte Area attained the 1997 8-hour ozone NAAQS by June 15, 2011, based on 2008- 2010 data.

26441. A summary of the North Carolina portion of the bi-state Charlotte Area 2002 base year emissions inventories is included in Table 2 below.

**Table 2. 2002 Point and Area Sources Annual Emissions for the North Carolina Portion of the Bi-state Charlotte Area (tons per summer day)**

County	Point		Area		Non-Road		Mobile	
	NOx	VOC	NOx	VOC	NOx	VOC	NOx	VOC
Cabarrus	2.6	2.2	0.8	6.0	5.4	2.7	17.2	21.5
Gaston	34.8	2.5	1.3	8.9	4.9	2.9	20.0	13.5
Iredell*	10.8	2.1	0.9	5.8	4.4	2.7	29.9	17.6
Lincoln	0.3	2.1	0.5	3.1	1.9	1.3	6.1	7.1
Mecklenburg	2.1	5.7	7.0	29.4	32.1	24.1	78.7	68.0
Rowan	11.0	6.3	0.8	5.6	4.1	2.3	19.7	14.8
Union	0.2	1.0	1.0	6.4	7.7	4.7	11.3	13.0

\* Represents only the portion of Iredell County that is in the nonattainment area for the bi-state Charlotte Area

As mentioned above, EPA has already approved this emissions inventory in a prior action.

## **B. Adjusted Base Year Inventory and 2008 RFP Target Levels**

The process for determining the emissions baseline from which the RFP reductions are calculated is described in section 182(b)(1) of the CAA and 40 CFR 51.910. This baseline value is the 2002 adjusted base year inventory. Sections 182(b)(1)(B) and (D) require the exclusion from the base year inventory of emissions benefits resulting from the Federal Motor Vehicle Control Program (FMVCP) regulations promulgated by January 1, 1990, and the Reid Vapor Pressure (RVP) regulations promulgated June 11, 1990 (55 FR 23666). The FMVCP and RVP emissions reductions are determined by the State using EPA's on-road mobile source emissions modeling software, MOBILE6. The FMVCP and RVP emission reductions are then removed

from the base year inventory by the State, resulting in an adjusted base year inventory. The emission reductions needed to satisfy the RFP requirement are then calculated from the adjusted base year inventory. These reductions are then subtracted from the adjusted base year inventory to establish the emissions target for the RFP milestone year (2008).

For moderate areas like the North Carolina portion of the bi-state Charlotte Area (as part of the bi-state Charlotte Area), the CAA specifies a 15 percent reduction in ozone precursor emissions over an initial six year period following the baseline inventory year. In the Phase 2 Rule, EPA interpreted this requirement for areas that were also designated nonattainment and classified as moderate or higher for the 1-hour ozone NAAQS. In the Phase 2 Rule, EPA provided that an area classified as moderate or higher that has the same boundaries as an area, or is entirely composed of several areas or portions of areas, for which EPA fully approved a 15 percent plan for the 1-hour NAAQS, is considered to have met the requirements of section 182(b)(1) of the CAA for the 8-hour NAAQS. In this situation, a moderate nonattainment area is subject to RFP under section 172(c)(2) of the CAA and shall submit, no later than 3 years after designation for the 8-hour NAAQS, a SIP revision that meets the requirements of 40 CFR 51.910(b)(2). The RFP SIP revision must provide for a 15 percent emission reduction (either nitrogen oxides (NO<sub>x</sub>) and/or VOC) accounting for any growth that occurs during the six year period following the baseline emissions inventory year, that is, 2002-2008.

The portion of the bi-state Charlotte Area that was classified as moderate under the 1-hour ozone NAAQS contained the counties of Gaston and Mecklenburg in North Carolina. Gaston and Mecklenburg counties were also designated nonattainment as a part of the 1997 8-hour ozone moderate bi-state Charlotte Area. Although a portion of this bi-state Charlotte Area

was classified as moderate for the 1-hour ozone NAAQS, a 15 percent rate of progress (ROP)<sup>7</sup> plan was not submitted due to its change in attainment status. Specifically, North Carolina submitted a redesignation and maintenance plan request instead before the due date of the 1-hour ozone NAAQS ROP plan. Therefore, because the bi-state Charlotte Area did not implement a 15 percent ROP plan under the 1-hour ozone NAAQS, the Area must have VOC reductions totaling at least 15 percent for the first six years following the baseline inventory year of 2002 in order for the RFP plan to be approved.

As mentioned earlier and according to section 182(b)(1)(D) of the CAA, emission reductions that resulted from the FMVCP and RVP rules promulgated prior to 1990 are not creditable for achieving RFP emission reductions. Therefore, the 2002 base year inventory is adjusted by subtracting the VOC and NO<sub>x</sub> emission reductions that are expected to occur between 2002 and the future milestone years due to the FMVCP and RVP rules.

In the Phase 2 Rule, promulgated on November 29, 2005 (70 FR 71612), EPA outlines Method 1 as the process that states should use to show compliance with RFP for areas like the North Carolina portion of the bi-state Charlotte Area. A summary of the steps for Method 1 is provided below.

- Step A is the actual anthropogenic base year VOC emissions inventory in 2002.
- Step B is to account for creditable emissions for RFP.
- Step C is to calculate non-creditable emissions for RFP. Non-creditable emissions include emissions from: (1) motor vehicle exhaust or evaporative emissions regulations promulgated by January 1, 1990; (2) regulations concern RVP promulgated by November

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<sup>7</sup> For the 1-hour ozone NAAQS, the plan to demonstrate progress towards attainment was known as the ROP plan. For the 8-hour ozone NAAQS, this same plan is known as the RFP plan.

15, 1990; (3) RACT corrections required prior to November 1990; and (4) corrective inspection and maintenance (I/M) plan required prior to November 1990.

- Step D is the 2002 base year emissions (Step A) minus the non-creditable emissions (Step C).
- Step E is to calculate the 2008 target level VOC emissions. This is calculated by reducing the emissions from Step D by 15 percent.
- The estimated 2008 VOC emissions are then compared to the 2008 target level VOC emissions (Step E).

As provided in North Carolina's RFP SIP revision, the State utilized the steps from Method 1 of the Phase 2 Rule. Specifically, North Carolina's November 30, 2009, SIP revision sets out the State's calculations.

**1. Step A: Estimate the actual anthropogenic base year VOC inventory in 2002 with all 2002 control programs in place for all sources.**

North Carolina provided this emission inventory in Table 3-1 of the November 30, 2009, RFP plan for the North Carolina portion of the bi-state Charlotte Area, and as shown in Table 3, below. As mentioned above, EPA has already approved this inventory. *See* 77 FR 26441 (May 4, 2012).

**Table 3. 2002 VOC Emissions Inventory for the North Carolina Portion of the Bi-state Charlotte Area (tons per summer day)**

County	Point	Area	Non-Road Mobile	On-Road Mobile	Total
Cabarrus	2.2	6.0	2.7	20.5	31.4
Gaston	2.5	8.9	2.9	13.3	27.6
Iredell*	0.9	1.9	0.9	6.6	10.3
Lincoln	2.1	3.1	1.3	6.7	13.2
Mecklenburg	5.7	29.4	24.1	66.1	125.3
Rowan	6.3	5.6	2.3	14.2	28.4
Union	1.0	6.4	4.7	12.3	24.4
Total	20.7	61.3	38.9	139.7	260.6

\* Represents only the portion of Iredell County that is in the nonattainment area for the bi-state Charlotte Area

- Step B: Using the same highway vehicle activity inputs used to calculate the actual 2002 inventory, run the appropriate motor vehicle emissions model for 2002 and for 2008 with all post-1990 CAA measures turned off. Any other local inputs for vehicle I/M programs should be set according to the program that was required to be in place in 1990. Fuel RVP should be set at 9.0 or 7.8 pounds per square inch (psi) depending on the RVP required in the local area as a result of fuel RVP regulations promulgated in June, 1990.**

For the North Carolina portion of the bi-state Charlotte Area, the RACT and I/M program corrections and the 1992 RVP requirements were completely in place by 1996 and therefore are already accounted for in the 2002 baseline. As a result, these measures would produce no additional reductions between 2002 and 2008 or later milestone years.

- Step C: Calculate the difference between the 2002 and 2008 VOC emission factors calculated in Step B and multiply by the 2002 vehicle miles traveled. The result is the VOC emission calculation that will occur between 2002 and 2008 without the benefits of any post-1990-CAA measures. These are the non-creditable reductions that occur over this period.**

North Carolina calculated the non-creditable emission reductions between 2002 and 2008 by modeling its 2002 and 2008 motor vehicle emissions with all post-1990 CAA measures turned off, and calculating the difference. The table below (as present in Table 4-8 of North



Carolina's November 30, 2009, SIP revision) shows that there is approximately a 10.0 tons per day (tpd) difference.

**Table 4. Total Bi-state Charlotte Area Non-Creditable VOC Emission Estimates (tpd)**

<b>County</b>	<b>Non-Creditable VOC Emissions</b>
Cabarrus	1.688
Gaston	0.912
Iredell*	0.822
Lincoln	0.633
Mecklenburg	3.384
Rowan	1.315
Union	1.230
<b>Total</b>	<b>9.984 or 10.0</b>

\* Represents only the portion of Iredell County that is in the nonattainment area for the bi-state Charlotte Area

- 4. Step D: Subtract the non-creditable reductions calculated in Step C from the actual anthropogenic 2002 inventory estimated in Step A. This adjusted VOC inventory is the basis for calculating the target level of emissions in 2008.**

The adjusted VOC inventory for calculating the target level of VOC emissions reductions for 2008 is 250.6 tpd (i.e., 260.6 tpd (i.e., result of Step A) and 10.0 tpd (i.e., the result of Step C)).

- 5. Step E: Reduce the adjusted VOC inventory calculated in Step D by 15 percent. The result is the target level of VOC emissions in 2008 in order to meet the 2008 RFP requirement. The actual projected 2008 inventory for all sources with all control measures in place, including projected 2008 growth in activity, must be at or lower than this target level of emissions.**

The targeted level of emissions reductions for the North Carolina portion of the bi-state Charlotte Area to meet RFP requirements is 37.6 tpd of VOC (i.e, 250.6 tpd multiplied by 15 percent). Thus the required targeted level of VOC emissions is 213.0 tpd for the North Carolina portion of the bi-state Charlotte Area.

**C. Final Analysis of North Carolina's RFP Analysis for the North Carolina Portion of the Bi-state Charlotte Area**

As mentioned above, the required target level for the North Carolina portion of the bi-state Charlotte Area to meet the initial RFP plan requirement is a 15 percent reduction in VOC emissions for 2008 from the VOC emissions in 2002 (as adjusted per CAA requirements). Specifically, to meet this requirement, North Carolina needed to demonstrate a reduction of at least 37.6 tpd. Table 5 below summarizes the results of North Carolina's calculations for this RFP analysis.

**Table 5. 15 Percent RFP Analysis for North Carolina Portion of Bi-state Charlotte Area**

<b>Step from Method 1</b>	<b>Matrix</b>	<b>VOC (tpd)</b>
Step A	Total 2002 Base Year Anthropogenic VOC Emissions	260.6
Step C	Non-Creditable VOC reductions	10.0
Step D	2002 Base Year minus the Non-Creditable Emissions	250.6
Step E	2008 Target Level of VOC Emissions	213.0

In its November 30, 2009, SIP revision, North Carolina calculated the 2008 VOC emissions inventory for the North Carolina portion of the bi-state Charlotte Area. This emissions inventory is provided in Table 6 below.

**Table 6. 2008 Baseline VOC Emissions (tpd) for North Carolina Portion of Bi-state Charlotte Area**

<b>County</b>	<b>Point</b>	<b>Area</b>	<b>Non-Road Mobile</b>	<b>On-Road Mobile</b>	<b>Total</b>
Cabarrus	2.3	5.9	1.5	10.4	<b>20.1</b>
Gaston	2.7	9.4	2.0	7.5	<b>21.6</b>
Iredell*	0.7	1.8	0.5	5.4	<b>8.4</b>
Lincoln	2.1	2.9	0.8	4.2	<b>10.0</b>
Mecklenburg	5.9	30.1	13.0	38.0	<b>87.0</b>
Rowan	6.0	5.6	1.5	14.2	<b>22.3</b>
Union	1.2	5.7	1.7	9.9	<b>18.5</b>
<b>Total</b>	<b>20.9</b>	<b>61.4</b>	<b>21.0</b>	<b>84.6</b>	<b>187.9</b>

\* Represents only the portion of Iredell County that is in the nonattainment area for the bi-state Charlotte Area

As discussed above, the required target for VOC emissions for the year 2008 for North Carolina to meet the RFP requirements for the North Carolina portion of the bi-state Charlotte Area is 213.0 tpd (i.e., 15 percent reduction from the adjusted 2002 baseline). As revealed in Table 6, North Carolina calculated an emissions inventory of 187.9 tpd of VOC for the North Carolina portion of the bi-state Charlotte Area in 2008, which is well below the 213.0 tpd required target. Thus, EPA is making the determination that North Carolina's SIP revision demonstrates the required progress towards attainment for the North Carolina portion of the bi-state Charlotte Area. In today's action, EPA is approving North Carolina's RFP SIP revision submitted on June 15, 2007 (as updated on November 30, 2009) as meeting the CAA and EPA's regulations regarding RFP.

#### **IV. What is the 2008 NO<sub>x</sub> Emissions Inventory for the North Carolina Portion of the Bi-state Charlotte Area?**

In support of its development of a NO<sub>x</sub> MVEB for the 2008, North Carolina, in its November 30, 2009, SIP revision, developed the NO<sub>x</sub> emissions inventory for the North Carolina portion of the bi-state Charlotte Area. This inventory is not required for the RFP plan

but is necessary for the development of the MVEB. This emissions inventory is provided in Table 7 below.

**Table 7. 2008 Baseline NOx Emissions (tpd) for the North Carolina Portion of Bi-state Charlotte Area**

<b>County</b>	<b>Point</b>	<b>Area</b>	<b>Non-Road Mobile</b>	<b>On-Road Mobile</b>	<b>Total</b>
Cabarrus	2.6	1.5	4.1	9.6	<b>17.8</b>
Gaston	32.8	2.2	4.8	10.0	<b>49.8</b>
Iredell*	0.5	0.4	0.9	6.9	<b>8.7</b>
Lincoln	9.3	0.7	1.4	3.7	<b>15.1</b>
Mecklenburg	2.0	11.3	20.9	45.6	<b>79.8</b>
Rowan	22.4	1.3	4.6	9.5	<b>37.8</b>
Union	0.2	1.5	3.3	7.4	<b>12.4</b>
<b>Total</b>	<b>69.8</b>	<b>18.9</b>	<b>40.0</b>	<b>92.7</b>	<b>221.4</b>

\* Represents only the portion of Iredell County that is in the nonattainment area for the bi-state Charlotte Area

#### **V. What is EPA’s Analysis of the 2008 MVEB for the North Carolina Portion of the Bi-state Charlotte Area?**

Under section 176(c) of the CAA, new transportation plans, programs, and projects, such as the construction of new highways, must “conform” to (i.e., be consistent with) the part of the state’s air quality plan that addresses pollution from cars and trucks. Conformity to the SIP means that transportation activities will not cause new air quality violations, worsen existing violations, or delay timely attainment of the NAAQS or any interim milestones. If a transportation plan does not conform, most new projects that would expand the capacity of roadways cannot go forward. Regulations at 40 CFR part 93 set forth EPA policy, criteria, and procedures for demonstrating and assuring conformity of such transportation activities to a SIP. The regional emissions analysis is one, but not the only, requirement for implementing transportation conformity. Transportation conformity is a requirement for nonattainment and maintenance areas. Maintenance areas are areas that were previously nonattainment for a

particular NAAQS but have since been redesignated to attainment with an approved maintenance plan for that NAAQS.

Under the CAA, states are required to submit, at various times, control strategy SIPs and maintenance plans for nonattainment areas. These control strategy SIPs (including RFP and attainment demonstrations) and maintenance plans create MVEB for criteria pollutants and/or their precursors to address pollution from cars and trucks. Per 40 CFR part 93, an MVEB must be established for the target year and precursor pollutant of the RFP (i.e., in this case, for the target year of 2008 and for VOC). A state may adopt MVEB for other precursors as well. North Carolina also opted to establish a MVEB for NO<sub>x</sub> for the year 2008. The MVEB is the portion of the total allowable emissions in the maintenance demonstration that is allocated to highway and transit vehicle use and emissions. *See* 40 CFR 93.101. The MVEB serves as a ceiling on emissions from an area's planned transportation system. The MVEB concept is further explained in the preamble to the November 24, 1993, Transportation Conformity Rule (58 FR 62188). The preamble also describes how to establish the MVEB in the SIP and how to revise the MVEB.

After interagency consultation with the transportation partners for the North Carolina portion of the bi-state Charlotte Area, North Carolina developed VOC and NO<sub>x</sub> MVEB for the year 2008. Specifically, North Carolina developed these MVEB, as required, for the target year and precursor – 2008 and VOC – for the RFP plan, and chose to establish an additional MVEB for NO<sub>x</sub> for the year 2008. The MVEB for the North Carolina portion of the bi-state Charlotte Area for North Carolina's 2008 RFP plan are based on the projected 2008 mobile source emissions accounting for all mobile control measures. The 2008 MVEB are defined in Table 8 below.

**Table 8. MVEB for North Carolina Portion of the 1997 8-Hour Bi-state Charlotte Area**

<b>2008 County-level Subarea MVEB (kg/d)</b>		
	VOC	NO <sub>x</sub>
Carbarrus	6,941	7,324
Gaston	5,132	7,647
Iredell*	3,601	5,637
Lincoln	2,726	2,948
Mecklenburg	26,368	34,526
Rowan	6,149	7,193
Union	6,299	5,660

\* Represents only the portion of Iredell County that is in the nonattainment area for the bi-state Charlotte Area

Through this rulemaking, EPA is approving the 2008 VOC and NO<sub>x</sub> MVEB for the North Carolina portion of the bi-state Charlotte Area because EPA has made the determination that the Area maintains the 1997 8-hour ozone NAAQS with the emissions at the levels of the budgets. Once the MVEB for the North Carolina portion of the bi-state Charlotte Area are approved or found adequate (whichever is completed first), they must be used for future conformity determinations for the 1997 8-hour ozone NAAQS for Metropolitan Planning Organizations' long-range transportation plans and transportation improvement programs. After thorough review, EPA has previously determined that the budgets meet the adequacy criteria, as outlined in 40 CFR 93.118(e)(4) (*see* 75 FR 7474, February 19, 2010), and is now approving the budgets because they are consistent with RFP for the 1997 8-hour ozone NAAQS for the year 2008.

**VI. What is the Status of EPA's Adequacy Determination for the 2008 MVEB for the North Carolina Portion of the Bi-state Charlotte Area?**

When reviewing a submitted "control strategy" SIP, RFP or maintenance plan containing a MVEB, EPA may affirmatively find the MVEB contained therein adequate for use in

determining transportation conformity. Once EPA affirmatively finds the submitted MVEB is adequate for transportation conformity purposes, that MVEB must be used by state and federal agencies in determining whether proposed transportation projects conform to the SIP as required by section 176(c) of the CAA.

EPA's substantive criteria for determining adequacy of a MVEB are set out in 40 CFR 93.118(e)(4). The process for determining adequacy consists of three basic steps: public notification of a SIP submission, a public comment period, and EPA's adequacy determination. This process for determining the adequacy of submitted MVEB for transportation conformity purposes was initially outlined in EPA's May 14, 1999, guidance, "Conformity Guidance on Implementation of March 2, 1999, Conformity Court Decision." EPA adopted regulations to codify the adequacy process in the Transportation Conformity Rule Amendments for the "New 8-Hour Ozone and PM<sub>2.5</sub> National Ambient Air Quality Standards and Miscellaneous Revisions for Existing Areas; Transportation Conformity Rule Amendments - Response to Court Decision and Additional Rule Change," on July 1, 2004 (69 FR 40004). Additional information on the adequacy process for transportation conformity purposes is available in the proposed rule entitled, "Transportation Conformity Rule Amendments: Response to Court Decision and Additional Rule Changes," 68 FR 38974, 38984 (June 30, 2003).

As discussed earlier, North Carolina's RFP plan submission includes VOC and NO<sub>x</sub> MVEB for the North Carolina portion of the bi-state Charlotte Area for the year 2008. EPA reviewed the MVEB through the adequacy process. The North Carolina SIP submission, including the 2008 MVEB for the North Carolina portion of the bi-state Charlotte Area, was open for public comment on EPA's adequacy website on December 3, 2009, found at: <http://www.epa.gov/otaq/stateresources/transconf/currrips.htm>. The EPA public comment

period on adequacy of the 2008 MVEB for the North Carolina portion of the bi-state Charlotte Area, closed on January 3, 2010. EPA did not receive any comments, adverse or otherwise, during the adequacy process. In a letter sent on January 12, 2010, EPA notified NC DENR that the MOBILE6.2-based 2008 VOC MVEB for the North Carolina portion of the bi-state Charlotte Area were determined to be adequate for transportation conformity purposes. On February 19, 2010, EPA published its adequacy notice in the Federal Register (75 FR 7474). When EPA found the 2008 MVEB adequate, this triggered a requirement that the new MVEB are used for future transportation conformity determinations. For required regional emissions analysis years beyond 2008, the applicable budgets are the 2008 MVEB. The 2008 MVEB are defined in sections I and V of this rulemaking.

## **VII. Final Action**

EPA is taking direct final action to approve portions of a SIP revision, submitted on June 15, 2007 (as later updated on November 30, 2009), by the State of North Carolina, through the NC DENR to meet the RFP requirements for the North Carolina portion of the bi-state Charlotte Area for the 1997 8-hour ozone NAAQS. Additionally, EPA is approving the VOC MVEB for the North Carolina portion of the bi-state Charlotte Area that were including in North Carolina's RFP plan. These actions are being taken pursuant to section 110 of the CAA.

EPA is publishing this rule without prior proposal because the Agency views this as a non-controversial amendment and anticipates no adverse comments. However, in the proposed rules section of this Federal Register publication, EPA is publishing a separate document that will serve as the proposal to approve the SIP revision should adverse comment be filed. This rule will be effective on [Insert date 60 days from date of publication] without further notice



unless the Agency receives adverse comment by [Insert date 30 days from date of publication]. If EPA receives such comments, then EPA will publish a document withdrawing the final rule and informing the public that the rule will not take effect. All public comments received will then be addressed in a subsequent final rule based on the proposed rule. EPA will not institute a second comment period on this action. Any parties interested in commenting must do so at this time. If no such comments are received, the public is advised this rule will be effective on [Insert date 60 days from date of publication] and no further action will be taken on the proposed rule.

#### **VIII. Statutory and Executive Order Reviews**

Under the CAA, the Administrator is required to approve a SIP submission that complies with the provisions of the Act and applicable federal regulations. 42 U.S.C. 7410(k); 40 CFR 52.02(a). Thus, in reviewing SIP submissions, EPA's role is to approve state choices, provided that they meet the criteria of the CAA. Accordingly, this action merely approves state law as meeting federal requirements and does not impose additional requirements beyond those imposed by State law. For that reason, this final action:

- is not a "significant regulatory action" subject to review by the Office of Management and Budget under Executive Order 12866 (58 FR 51735, October 4, 1993);
- does not impose an information collection burden under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 *et seq.*);
- is certified as not having a significant economic impact on a substantial number of small entities under the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*);

- does not contain any unfunded mandate or significantly or uniquely affect small governments, as described in the Unfunded Mandates Reform Act of 1995 (Public Law 104-4);
- does not have Federalism implications as specified in Executive Order 13132 (64 FR 43255, August 10, 1999);
- is not an economically significant regulatory action based on health or safety risks subject to Executive Order 13045 (62 FR 19885, April 23, 1997);
- is not a significant regulatory action subject to Executive Order 13211 (66 FR 28355, May 22, 2001);
- is not subject to requirements of Section 12(d) of the National Technology Transfer and Advancement Act of 1995 (15 U.S.C. 272 note) because application of those requirements would be inconsistent with the CAA; and
- does not provide EPA with the discretionary authority to address, as appropriate, disproportionate human health or environmental effects, using practicable and legally permissible methods, under Executive Order 12898 (59 FR 7629, February 16, 1994).

In addition, this rule does not have tribal implications as specified by Executive Order 13175 (65 FR 67249, November 9, 2000), because the SIP is not approved to apply in Indian country located in the State, and EPA notes that it will not impose substantial direct costs on tribal governments or preempt tribal law.

The Congressional Review Act, 5 U.S.C. 801 *et seq.*, as added by the Small Business Regulatory Enforcement Fairness Act of 1996, generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the

rule, to each House of the Congress and to the Comptroller General of the United States. EPA will submit a report containing this action and other required information to the U.S. Senate, the U.S. House of Representatives, and the Comptroller General of the United States prior to publication of the rule in the Federal Register. A major rule cannot take effect until 60 days after it is published in the Federal Register. This action is not a “major rule” as defined by 5 U.S.C. 804(2).

Under section 307(b)(1) of the CAA, petitions for judicial review of this action must be filed in the United States Court of Appeals for the appropriate circuit by [FEDERAL REGISTER OFFICE: insert date 60 days from date of publication of this document in the Federal Register]. Filing a petition for reconsideration by the Administrator of this final rule does not affect the finality of this action for the purposes of judicial review nor does it extend the time within which a petition for judicial review may be filed, and shall not postpone the effectiveness of such rule or action. Parties with objections to this direct final rule are encouraged to file a comment in response to the parallel notice of proposed rulemaking for this action published in the proposed rules section of today's Federal Register, rather than file an immediate petition for judicial review of this direct final rule, so that EPA can withdraw this direct final rule and address the comment in the proposed rulemaking. This action may not be challenged later in proceedings to enforce its requirements. *See* section 307(b)(2).

**List of Subjects in 40 CFR Part 52**

Environmental protection, Air pollution control, Incorporation by reference, Intergovernmental relations, Ozone, Reporting and recordkeeping requirements, and Volatile organic compounds.

Dated: October 2, 2012

A. Stanley Meiburg

Acting Regional Administrator,

Region 4.

40 CFR part 52 is amended as follows:

**PART 52--[AMENDED]**

1. The authority citation for part 52 continues to read as follows:

Authority: 42 U.S.C. 7401 *et seq.*

**Subpart II—North Carolina**

2. Section 52.1770(e), is amended by adding a new entry for “1997 8-hour ozone reasonable further progress plan for North Carolina portion of the bi-state Charlotte Area” to the end of the table to read as follows:

**§ 52. 1770 Identification of plan.**

\* \* \* \* \*

(e) \* \* \*

EPA Approved North Carolina Non-regulatory Provisions

Provision	State effective date	EPA approval date	Federal Register Citation
**	**	*	*
1997 8-hour ozone reasonable further progress plan for North Carolina portion of the bi-state Charlotte Area	11/30/09	[Insert date of publication in <u>Federal Register</u> ]	[Insert citation of publication]

**[FR Doc. 2012-25181 Filed 10/11/2012 at 8:45 am; Publication Date: 10/12/2012]**